Science for Decision Support:
Supporting Scientific Assessments

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Scientific Assessments

- What is a scientific assessment?
  - *"not assessment with a capital 'A', lowercase assessments"*--Woody
- General ideas
  - get users involved early
  - parallel development of data, models, applications

Candidates for near-term applications

- estimating fish recruitment and abundance

- biodiversity maps

- climate change mitigation and carbon management

- water resource management

- public health, vector borne diseases

- annual ecoregion maps, changes

- ocean particle trajectory tools

- land-ocean interactions (transport of nutrients, carbon)

- maps of potential productivity, land use

- protected area impacts

- thresholds of concern/change

Barriers to using ES data/models in decision support

- lack of knowledge of possibilities from users
- lack of knowledge of needs from scientists
- variations in language between fields
- methods for downscaling
- change in data formats and projections
- different versions of same data type
- lack of incentives to cooperate with managers

Resources Required

- data continuity and management

- linkages with cal/val (for error analysis)

- information on quality of data necessary to support a particular decision

- improved timeliness of products (lower quality may be acceptable)

- gap-filled data

- custom processing at the DACs (users don't have computational capacity and knowledge)

- sharing of models & modeling capabilities

- joint calls with USDA, NOAA to develop support tools

Assessments (not assessments)

- State of the
  - ocean ecosystem
  - food supply
  - carbon cyle
- Regional climate impact assessments